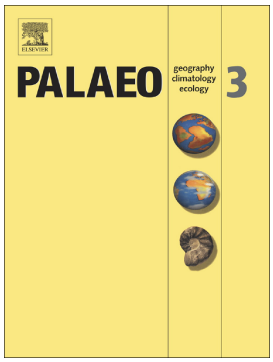

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Mineralogical evidence for warm and dry climatic conditions in the Neo-Tethys (eastern Turkey) during the middle Eocene

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Abstract

Minerals in stratigraphic sections are valuable tools for reconstructing past environmental conditions. Given the state of preservation of clay minerals, it is possible to determine under what conditions they formed, which provides clues about continental weathering (inherited minerals) and geochemical conditions in the water column or pore waters (neoformed or transformed) of the sedimentary environment. This study presents new mineralogical and chemical data from the Baskil section, a well-preserved middle Eocene Neo-Tethys sequence from eastern Turkey. Greater terrigenous input is marked by the increase of silicate minerals (e.g. phyllosilicates, quartz, and albite) in the section from 40.5 to 40 Ma, which diluted the